

SEQUENCE LISTING

<110> Crooke, Stanley T.  
Lima, Walter  
Wu, Hongjiang

<120> Methods of Using Mammalian RNase H and Compositions Thereof

<130> ISPH-0520

<150> US 09/684,254  
<151> 2000-10-06

<150> US 09/343,809  
<151> 1999-06-30

<150> US 09/203,716  
<151> 1998-12-02

<150> US 60/067,458  
<151> 1997-12-04

<160> 39

<170> PatentIn version 3.0

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<213> Homo sapiens

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Val Asp Glu Ala Gly Arg Gly Pro Val Leu Gly Pro Met Val Tyr Ala  
35 40 45

Ile Cys Tyr Cys Pro Leu Pro Arg Leu Ala Asp Leu Glu Ala Leu Lys  
50 55 60

Val Ala Asp Ser Lys Thr Leu Leu Glu Ser Glu Arg Glu Arg Leu Phe  
65 70 75 80

Ala Lys Met Glu Asp Thr Asp Phe Val Gly Trp Ala Leu Asp Val Leu  
85 90 95

Ser Pro Asn Leu Ile Ser Thr Ser Met Leu Gly Trp Val Lys Tyr Asn  
100 105 110

Leu Asn Ser Leu Ser His Asp Thr Ala Thr Gly Leu Ile Gln Tyr Ala  
115 120 125

Leu Asp Gln Gly Val Asn Val Thr Gln Val Phe Val Asp Thr Val Gly  
130 135 140

Met Pro Glu Thr Tyr Gln Ala Arg Leu Gln Gln Ser Phe Pro Gly Ile  
145 150 155 160

Glu Val Thr Val Lys Ala Lys Ala Asp Ala Leu Tyr Pro Val Val Ser  
165 170 175

Ala Ala Ser Ile Cys Ala Lys Val Ala Arg Asp Gln Ala Val Lys Lys  
180 185 190

Trp Gln Phe Val Glu Lys Leu Gln Asp Leu Asp Thr Asp Tyr Gly Ser  
195 200 205

Gly Tyr Pro Asn Asp Pro Lys Thr Lys Ala Trp Leu Lys Glu His Val  
210 215 220

Glu Pro Val Phe Gly Phe Pro Gln Phe Val Arg Phe Ser Trp Arg Thr  
225 230 235 240

Ala Gln Thr Ile Leu Glu Lys Glu Ala Glu Asp Val Ile Trp Glu Asp  
245 250 255

Ser Ala Ser Glu Asn Gln Glu Gly Leu Arg Lys Ile Thr Ser Tyr Phe  
260 265 270

Leu Asn Glu Gly Ser Gln Ala Arg Pro Arg Ser Ser His Arg Tyr Phe  
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Leu Glu Arg Gly Leu Glu Ser Ala Thr Ser Leu  
290 295

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Ser Ser Pro Val Pro Ala Val Cys Leu Lys Glu Pro Cys Val Leu Gly  
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Val Asp Glu Ala Gly Arg Gly Pro Val Leu Gly Pro Met Val Tyr Ala  
35 40 45

Ile Cys Tyr Cys Pro Leu Ser Arg Leu Ala Asp Leu Glu Ala Leu Lys  
50 55 60

Val Ala Asp Ser Lys Thr Leu Thr Glu Asn Glu Arg Glu Arg Leu Phe  
65 70 75 80

Ala Lys Met Glu Glu Asp Gly Asp Phe Val Gly Trp Ala Leu Asp Val  
85 90 95

Leu Ser Pro Asn Leu Ile Ser Thr Ser Met Leu Gly Arg Val Lys Tyr  
                  100                         105                 110  
  
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 Thr Glu Arg Ser Lys Thr Trp Asn Asn Phe Gly Asn Gly Ile Pro Cys  
  20                 25                     30  
  
 Val Leu Gly Ile Asp Glu Ala Gly Arg Gly Pro Val Leu Gly Pro Met  
  35                 40                     45  
  
 Val Tyr Ala Ala Ala Ile Ser Pro Leu Asp Gln Asn Val Glu Leu Lys  
  50                 55                     60  
  
 Asn Leu Gly Val Asp Asp Ser Lys Ala Leu Asn Glu Ala Lys Arg Glu  
  65                 70                     75                 80  
  
 Glu Ile Phe Asn Lys Met Asn Glu Asp Glu Asp Ile Gln Gln Ile Ile  
  85                 90                     95  
  
 Ala Tyr Ala Leu Arg Cys Leu Ser Pro Glu Leu Ile Ser Cys Ser Met  
  100                105                    110  
  
 Leu Lys Arg Gln Lys Tyr Ser Leu Asn Glu Val Ser His Glu Ala Ala  
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 Ile Thr Leu Ile Arg Asp Ala Leu Ala Cys Asn Val Asn Val Val Glu  
  130                135                    140  
  
 Ile Lys Val Asp Thr Val Gly Pro Lys Ala Thr Tyr Gln Ala Lys Leu  
  145                150                    155                 160  
  
 Glu Lys Leu Phe Pro Gly Ile Ser Ile Cys Val Thr Glu Lys Ala Asp  
  165                170                    175  
  
 Ser Leu Phe Pro Ile Val Ser Ala Ala Ser Ile Ala Ala Lys Val Thr  
  180                185                    190  
  
 Arg Asp Ser Arg Leu Arg Asn Trp Gln Phe Arg Glu Lys Asn Ile Lys  
  195                200                    205  
  
 Val Pro Asp Ala Gly Tyr Gly Ser Gly Tyr Pro Gly Asp Pro Asn Thr  
  210                215                    220  
  
 Lys Lys Phe Leu Gln Leu Ser Val Glu Pro Val Phe Gly Phe Cys Ser

225	230	235	240
Leu Val Arg Ser Ser Trp Lys Thr Ala Ser Thr Ile Val Glu Lys Arg			
245	250	255	
Cys Val Pro Gly Ser Trp Glu Asp Asp Glu Glu Glu Gly Lys Ser Gln			
260	265	270	
Ser Lys Arg Met Thr Ser Trp Met Val Pro Lys Asn Glu Thr Glu Val			
275	280	285	
Val Pro Lys Arg Asn Met Glu Ile Asn Leu Thr Lys Ile Val Ser Thr			
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Leu Phe Leu			
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Ser Tyr Phe Ser Pro Val Pro Ser Ala Leu Leu Glu Gln Asn Asp Ser			
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Pro Ile Ile Met Gly Ile Asp Glu Ala Gly Arg Gly Pro Val Leu Gly			
35	40	45	
Pro Met Val Tyr Ala Val Ala Tyr Ser Thr Gln Lys Tyr Gln Asp Glu			
50	55	60	
Thr Ile Ile Pro Asn Tyr Glu Phe Asp Asp Ser Lys Lys Leu Thr Asp			
65	70	75	80
Pro Ile Arg Arg Met Leu Phe Ser Lys Ile Tyr Gln Asp Asn Glu Glu			
85	90	95	
Leu Thr Gln Ile Gly Tyr Ala Thr Thr Cys Ile Thr Pro Leu Asp Ile			
100	105	110	
Ser Arg Gly Met Ser Lys Phe Pro Pro Thr Arg Asn Tyr Asn Leu Asn			
115	120	125	
Glu Gln Ala His Asp Val Thr Met Ala Leu Ile Asp Gly Val Ile Lys			
130	135	140	
Gln Asn Val Lys Leu Ser His Val Tyr Val Asp Thr Val Gly Pro Pro			
145	150	155	160
Ala Ser Tyr Gln Lys Lys Leu Glu Gln Arg Phe Pro Gly Val Lys Phe			
165	170	175	

Thr Val Ala Lys Lys Ala Asp Ser Leu Tyr Cys Met Val Ser Val Ala  
180 185 190

Ser Val Val Ala Lys Val Thr Arg Asp Ile Leu Val Glu Ser Leu Lys  
195 200 205

Arg Asp Pro Asp Glu Ile Leu Gly Ser Gly Tyr Pro Ser Asp Pro Lys  
210 215 220

Thr Val Ala Trp Leu Lys Arg Asn Gln Thr Ser Leu Met Gly Trp Pro  
225 230 235 240

Ala Asn Met Val Arg Phe Ser Trp Gln Thr Cys Gln Thr Leu Leu Asp  
245 250 255

Asp Ala Ser Lys Asn Ser Ile Pro Ile Lys Trp Glu Glu Gln Tyr Met  
260 265 270

Asp Ser Arg Lys Asn Ala Ala Gln Lys Thr Lys Gln Leu Gln Leu Gln  
275 280 285

Met Val Ala Lys Pro Val Arg Arg Lys Arg Leu Arg Thr Leu Asp Asn  
290 295 300

Trp Tyr Arg  
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Ile Leu Asp Pro Ala Arg Pro Ile Ala Gly Leu Asn Asp Ser Lys Lys  
35 40 45

Leu Ser Glu Lys Arg Arg Leu Ala Leu Tyr Glu Glu Ile Lys Glu Lys  
50 55 60

Ala Leu Ser Trp Ser Leu Gly Arg Ala Glu Pro His Glu Ile Asp Glu  
65 70 75 80

Leu Asn Ile Leu His Ala Thr Met Leu Ala Met Gln Arg Ala Val Ala  
85 90 95

Gly Leu His Ile Ala Pro Glu Tyr Val Leu Ile Asp Gly Asn Arg Cys  
100 105 110

Pro Lys Leu Pro Met Pro Ala Met Ala Val Val Lys Gly Asp Ser Arg  
115 120 125

Val	Pro	Glu	Ile	Ser	Ala	Ala	Ser	Ile	Leu	Ala	Lys	Val	Thr	Arg	Asp
130								135							140

Ala Glu Met Ala Ala Leu Asp Ile Val Phe Pro Gln Tyr Gly Phe Ala  
145 150 155 160

Gln His Lys Gly Tyr Pro Thr Ala Phe His Leu Glu Lys Leu Ala Glu  
165 170 175

His Gly Ala Thr Glu His His Arg Arg Ser Phe Gly Pro Val Lys Arg  
180 185 190

Ala Leu Gly Leu Ala Ser  
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<310> US 6,001,653  
<311> 1998-12-02  
<312> 1999-12-14

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Pro Cys Arg Arg Gly Ser Arg Gly Phe Gly Met Phe Tyr Ala Val Arg

Arg Gly Arg Lys Thr Gly Val Phe Leu Thr Trp Asn Glu Cys Arg Ala  
25 10 15

Gln Val Asp Arg Phe Pro Ala Ala Arg Phe Lys Lys Phe Ala Thr Glu  
50 55 60

Asp Glu Ala Trp Ala Phe Val Arg Lys Ser Ala Ser Pro Glu Val Ser  
65 70 75 80

Glu Gly His Glu Asn Gln His Gly Gln Glu Ser Glu Ala Lys Pro Gly

Lys Arg Leu Arg Glu Pro Leu Asp Gly Asp Gly His Glu Ser Ala Gln

Pro Tyr Ala Lys His Met Lys Pro Ser Val Glu Pro Ala Pro Pro Val

Ser Arg Asp Thr Phe Ser Tyr Met Gly Asp Phe Val Val Val Tyr Thr

Asp Gly Cys Cys Ser Ser Asn Gly Arg Arg Lys Pro Arg Ala Gly Ile  
145 150 155 160

Gly Val Tyr Trp Gly Pro Gly His Pro Leu Asn Val Gly Ile Arg Leu  
165 170 175

Pro Gly Arg Gln Thr Asn Gln Arg Ala Glu Ile His Ala Ala Cys Lys  
180 185 190

Ala Ile Glu Gln Ala Lys Thr Gln Asn Ile Asn Lys Leu Val Leu Tyr  
195 200 205

Thr Asp Ser Met Phe Thr Ile Asn Gly Ile Thr Asn Trp Val Gln Gly  
210 215 220

Trp Lys Lys Asn Gly Trp Lys Thr Ser Ala Gly Lys Glu Val Ile Asn  
225 230 235 240

Lys Glu Asp Phe Val Ala Leu Glu Arg Leu Thr Gln Gly Met Asp Ile  
245 250 255

Gln Trp Met His Val Pro Gly His Ser Gly Phe Ile Gly Asn Glu Glu  
260 265 270

Ala Asp Arg Leu Ala Arg Glu Gly Ala Lys Gln Ser Glu Asp  
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<213> Homo sapiens

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<301> Wu et al.

<302> Molecular Cloning and Expression of cDNA for Human RNase H

<303> Antisense Nucleic Acid Drug Design

<304> 8

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<306> 53-61

<307> 1998-\_\_-\_\_

<308> AF039652

<309> 1998-04-02

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Arg Gly Arg Lys Thr Gly Val Phe Leu Thr Trp Asn Glu Cys Arg Ala  
35 40 45

Gln Val Asp Arg Phe Pro Ala Ala Arg Phe Lys Lys Phe Ala Thr Glu  
50 55 60

Asp Glu Ala Trp Ala Phe Val Arg Lys Ser Ala Ser Pro Glu Val Ser  
 65 70 75 80  
 Glu Gly His Glu Asn Gln His Gly Gln Glu Ser Glu Ala Lys Ala Ser  
 85 90 95  
 Lys Arg Leu Arg Glu Pro Leu Asp Gly Asp Gly His Glu Ser Ala Glu  
 100 105 110  
 Pro Tyr Ala Lys His Met Lys Pro Ser Val Glu Pro Ala Pro Pro Val  
 115 120 125  
 Ser Arg Asp Thr Phe Ser Tyr Met Gly Asp Phe Val Val Val Tyr Thr  
 130 135 140  
 Asp Gly Cys Cys Ser Ser Asn Gly Arg Arg Arg Pro Arg Ala Gly Ile  
 145 150 155 160  
 Gly Val Tyr Trp Gly Pro Gly His Pro Leu Asn Val Gly Ile Arg Leu  
 165 170 175  
 Pro Gly Arg Gln Thr Asn Gln Arg Ala Glu Ile His Ala Ala Cys Lys  
 180 185 190  
 Ala Ile Glu Gln Ala Lys Thr Gln Asn Ile Asn Lys Leu Val Leu Tyr  
 195 200 205  
 Thr Asp Ser Met Phe Thr Ile Asn Gly Ile Thr Asn Trp Val Gln Gly  
 210 215 220  
 Trp Lys Lys Asn Gly Trp Lys Thr Ser Ala Gly Lys Glu Val Ile Asn  
 225 230 235 240  
 Lys Glu Asp Phe Val Ala Leu Glu Arg Leu Thr Gln Gly Met Asp Ile  
 245 250 255  
 Gln Trp Met His Val Pro Gly His Ser Gly Phe Ile Gly Asn Glu Glu  
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 Ala Asp Arg Leu Ala Arg Glu Gly Ala Lys Gln Ser Glu Asp  
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 <301> Cerritelli and Crouch  
 <302> Cloning, Expression and Mapping of Ribonucleases H of Human and  
 Mouse Related to Bacterial RNase HI  
 <303> Genomics  
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 <306> 300-307  
 <307> 1998-11-\_\_  
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Arg Gly Arg Lys Thr Gly Val Phe Leu Thr Trp Asn Glu Cys Arg Ala  
35 40 45

Gln Val Asp Arg Phe Pro Ala Ala Arg Phe Lys Lys Phe Ala Thr Glu  
50 55 60

Asp Glu Ala Trp Ala Phe Val Arg Lys Ser Ala Ser Pro Glu Val Ser  
65 70 75 80

Glu Gly His Glu Asn Gln His Gly Gln Glu Ser Glu Ala Lys Ala Ser  
85 90 95

Lys Arg Leu Arg Glu Pro Leu Asp Gly Asp Gly His Glu Ser Ala Glu  
100 105 110

Pro Tyr Ala Lys His Met Lys Pro Ser Val Glu Pro Ala Pro Pro Val  
115 120 125

Ser Arg Asp Thr Phe Ser Tyr Met Gly Asp Phe Val Val Val Tyr Thr  
130 135 140

Asp Gly Cys Cys Ser Ser Asn Gly Arg Arg Pro Arg Ala Gly Ile  
145 150 155 160

Gly Val Tyr Trp Gly Pro Gly His Pro Leu Asn Val Gly Ile Arg Leu  
165 170 175

Pro Gly Arg Gln Thr Asn Gln Arg Ala Glu Ile His Ala Ala Cys Lys  
180 185 190

Ala Ile Glu Gln Ala Lys Thr Gln Asn Ile Asn Lys Leu Val Leu Tyr  
195 200 205

Thr Asp Ser Met Phe Thr Ile Asn Gly Ile Thr Asn Trp Val Gln Gly  
210 215 220

Trp Lys Lys Asn Gly Trp Lys Thr Ser Ala Gly Lys Glu Val Ile Asn  
225 230 235 240

Lys Glu Asp Phe Val Ala Leu Glu Arg Leu Thr Gln Gly Met Asp Ile  
245 250 255

Gln Trp Met His Val Pro Gly His Ser Gly Phe Ile Gly Asn Glu Glu  
260 265 270

Ala Asp Arg Leu Ala Arg Glu Gly Ala Lys Gln Ser Glu Asp  
275 280 285

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 <212> PRT  
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<300>  
 <301> Frank, Braunshofer-Reiter, Poltl and Holzmann  
 <302> Cloning, Subcellular Localization and Functional Expression of  
 Human RNase HII  
 <303> Biol. Chem.  
 <304> 379  
 <305> 99  
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 <307> 1998-12-  
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Pro	Cys	Arg	Arg	Gly	Ser	Arg	Gly	Phe	Gly	Met	Phe	Tyr	Ala	Val	Arg
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Arg	Gly	Arg	Lys	Thr	Gly	Val	Phe	Leu	Thr	Trp	Asn	Glu	Cys	Arg	Ala
															45
Gln	Val	Asp	Arg	Phe	Pro	Ala	Ala	Arg	Phe	Lys	Lys	Phe	Ala	Thr	Glu
															55
															60
Asp	Glu	Ala	Trp	Ala	Phe	Val	Arg	Lys	Ser	Ala	Ser	Pro	Glu	Val	Ser
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															70
															75
															80
Glu	Gly	His	Glu	Asn	Gln	His	Gly	Arg	Glu	Ser	Glu	Ala	Lys	Ala	Ser
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															90
															95
Lys	Arg	Leu	Arg	Glu	Pro	Leu	Asp	Gly	Asp	Gly	His	Glu	Ser	Ala	Glu
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															105
															110
Pro	Tyr	Ala	Lys	His	Met	Lys	Pro	Ser	Val	Glu	Pro	Ala	Pro	Pro	Val
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															125
Ser	Arg	Asp	Thr	Phe	Ser	Tyr	Met	Gly	Asp	Phe	Val	Val	Val	Tyr	Thr
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															135
															140
Asp	Gly	Cys	Cys	Ser	Ser	Asn	Gly	Arg	Arg	Arg	Pro	Arg	Ala	Gly	Ile
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															155
															160
Gly	Val	Tyr	Trp	Gly	Pro	Gly	His	Pro	Leu	Asn	Val	Gly	Ile	Arg	Leu
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															170
															175
Pro	Gly	Arg	Gln	Thr	Asn	Gln	Arg	Ala	Glu	Ile	His	Ala	Ala	Cys	Lys
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															185
															190
Ala	Ile	Glu	Gln	Ala	Lys	Thr	Gln	Asn	Ile	Asn	Lys	Leu	Val	Leu	Tyr
															195
															200
															205

Thr Asp Ser Met Phe Thr Ile Asn Gly Ile Thr Asn Trp Val Arg Gly  
210 215 220

Trp Lys Lys Asn Gly Trp Lys Thr Ser Ala Gly Lys Glu Val Ile Asn  
225 230 235 240

Lys Glu Asp Phe Val Ala Leu Glu Arg Leu Thr Gln Gly Met Asp Ile  
245 250 255

Gln Trp Met His Val Pro Gly His Ser Gly Phe Ile Gly Asn Glu Glu  
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Ala Asp Arg Leu Ala Arg Glu Gly Ala Lys Gln Ser Glu Asp  
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<213> Homo sapiens

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<301> Frank, Braunshofer-Reiter, Wintersberger, Grimm and Busen

<302> Cloning of the cDNA encoding the large subunit of human RNase HI, a homologue of the prokaryotic RNase HII

<303> Proc. Natl. Acad. Sci. USA

<304> 95

<305> 22

<306> 12872-12877

<307> 1998-10-27

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Val Asp Glu Ala Gly Arg Gly Pro Val Leu Gly Pro Met Val Tyr Ala  
35 40 45

Ile Cys Tyr Cys Pro Leu Pro Arg Leu Ala Asp Leu Glu Ala Leu Lys  
50 55 60

Val Ala Asp Ser Lys Thr Leu Leu Glu Ser Glu Arg Glu Arg Leu Phe  
65 70 75 80

Ala Lys Met Glu Asp Thr Asp Phe Val Gly Trp Ala Leu Asp Val Leu  
85 90 95

Ser Pro Asn Leu Ile Ser Thr Ser Met Leu Gly Arg Val Lys Tyr Asn  
100 105 110

Leu Asn Ser Leu Ser His Asp Thr Ala Thr Gly Leu Ile Gln Tyr Ala  
115 120 125

Leu Asp Gln Gly Val Asn Val Thr Gln Val Phe Val Asp Thr Val Gly  
130 135 140

Met Pro Glu Thr Tyr Gln Ala Gln Leu Gln Ser Phe Pro Gly Ile  
145 150 155 160

Glu Val Thr Val Lys Ala Lys Ala Asp Ala Leu Tyr Pro Val Val Ser  
165 170 175

Ala Ala Ser Ile Cys Ala Lys Val Ala Arg Asp Gln Ala Val Lys Lys  
180 185 190

Trp Gln Phe Val Glu Lys Leu Gln Asp Leu Asp Thr Asp Tyr Gly Ser  
195 200 205

Gly Tyr Pro Asn Asp Pro Lys Thr Lys Ala Trp Leu Lys Glu His Val  
210 215 220

Glu Pro Val Phe Gly Phe Pro Gln Phe Val Arg Phe Ser Trp Arg Thr  
225 230 235 240

Ala Gln Thr Ile Leu Glu Lys Glu Ala Glu Asp Val Ile Trp Glu Asp  
245 250 255

Ser Ala Ser Glu Asn Gln Glu Gly Leu Arg Lys Ile Thr Ser Tyr Phe  
260 265 270

Leu Asn Glu Gly Ser Gln Ala Arg Pro Arg Ser Ser His Arg Tyr Phe  
275 280 285

Leu Glu Arg Gly Leu Glu Ser Ala Thr Ser Leu  
290 295

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<302> Cloning, Expression and Mapping of Ribonucleases H of Human and  
Mouse Related to Bacterial RNase HI  
<303> Genomics  
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<307> 1998-11-\_\_  
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Arg Leu Arg Arg Gly Ile Cys Gly Leu Gly Met Phe Tyr Ala Val Arg  
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Arg	Gly	Arg	Arg	Thr	Gly	Val	Phe	Leu	Ser	Trp	Ser	Glu	Cys	Lys	Ala
35						40						45			
Gln	Val	Asp	Arg	Phe	Pro	Ala	Ala	Arg	Phe	Lys	Lys	Phe	Ala	Thr	Glu
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Asp	Glu	Ala	Trp	Ala	Phe	Val	Arg	Ser	Ser	Ser	Pro	Asp	Gly	Ser	
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Lys	Gly	Gln	Glu	Ser	Ala	His	Glu	Gln	Lys	Ser	Gln	Ala	Lys	Thr	Ser
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Lys	Arg	Pro	Arg	Glu	Pro	Leu	Gly	Glu	Gly	Glu	Leu	Pro	Glu	Pro	
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Gly	Pro	Lys	His	Thr	Arg	Gln	Asp	Thr	Glu	Pro	Ala	Ala	Val	Val	Ser
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Lys	Asp	Thr	Phe	Ser	Tyr	Met	Gly	Glu	Ser	Val	Ile	Val	Tyr	Thr	Asp
						130			135			140			
Gly	Cys	Cys	Ser	Ser	Asn	Gly	Arg	Lys	Arg	Ala	Arg	Ala	Gly	Ile	Gly
						145			150			155			160
Val	Tyr	Trp	Gly	Pro	Gly	His	Pro	Leu	Asn	Val	Gly	Ile	Arg	Leu	Pro
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Gly	Arg	Gln	Thr	Asn	Gln	Arg	Ala	Glu	Ile	His	Ala	Ala	Cys	Lys	Ala
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Ile	Met	Gln	Ala	Lys	Ala	Gln	Asn	Ile	Ser	Lys	Leu	Val	Leu	Tyr	Thr
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Asp	Ser	Met	Phe	Thr	Ile	Asn	Gly	Ile	Thr	Asn	Trp	Val	Gln	Gly	Trp
						210			215			220			
Lys	Lys	Asn	Gly	Trp	Arg	Thr	Ser	Thr	Gly	Lys	Asp	Val	Ile	Asn	Lys
						225			230			235			240
Glu	Asp	Phe	Met	Glu	Leu	Asp	Glu	Leu	Thr	Gln	Gly	Met	Asp	Ile	Gln
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Trp	Met	His	Ile	Pro	Gly	His	Ser	Gly	Phe	Val	Gly	Asn	Glu	Glu	Ala
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agtggcagac	tcaaagaccc	tattggagag	cgagcgggaa	aggctgttt	cgaaaatgga	300	
ggacacggac	tttgtcggct	gggcgctgga	tgtgctgtct	ccaaacctca	tctctaccag	360	
catgcttggg	tgggtcaa	at	acaacctgaa	ctccctgtca	catgatacag	ccactgggct	420
tatacagtat	gcattggacc	agggcgtgaa	cgtcacccag	gtattcgtgg	acaccgttagg	480	
gatgccagag	acataccagg	cgcggctgca	gcaaagttt	cccgggattt	aggtgacggt	540	
caaggccaaa	gcagatgccc	tctacccggt	ggttagtgtct	gccagcatct	gtgccaaggt	600	
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ggagcctgtg	ttcggcttcc	cccagttt	ccggttcagc	tggcgcacgg	cccagaccat	780	
cctggagaaa	gaggcggaag	atgttatatg	ggaggactca	gcatccgaga	atcaggaggg	840	
actcaggaag	atcacatcct	acttcctcaa	tgaagggtcc	caagcccg	cccgttcttc	900	
ccaccgatat	ttcctggaac	gcggcctgga	gtcagcaacc	agcctctagc	agctgcctct	960	
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DNA sequence and its antisense complement

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